

THE NATIONAL GEOGRAPHIC MAGAZINE

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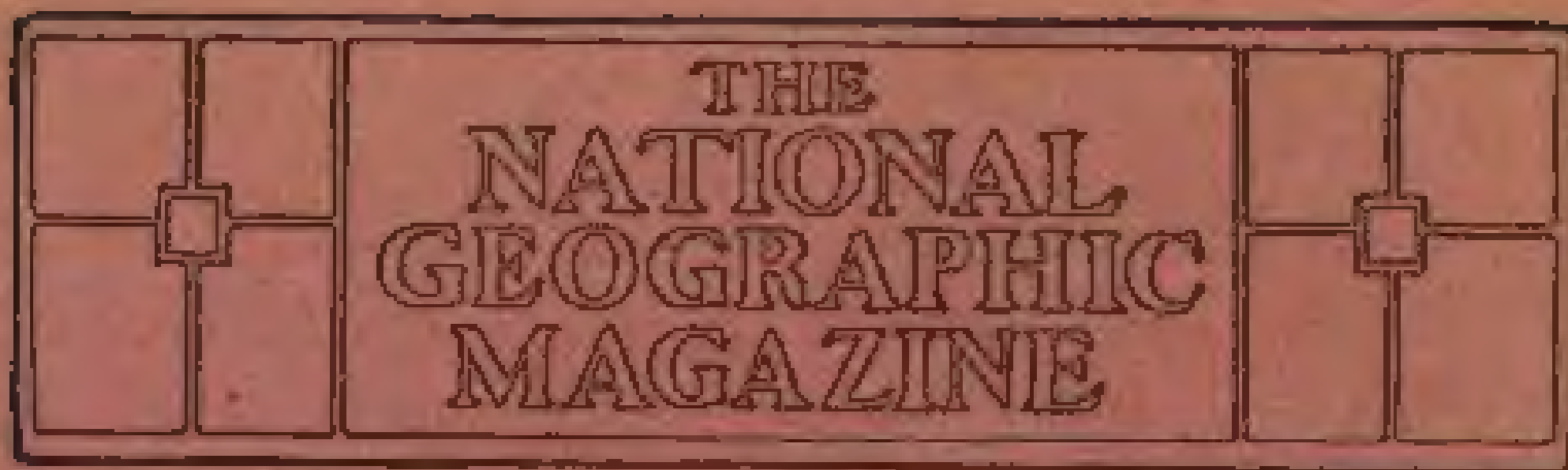
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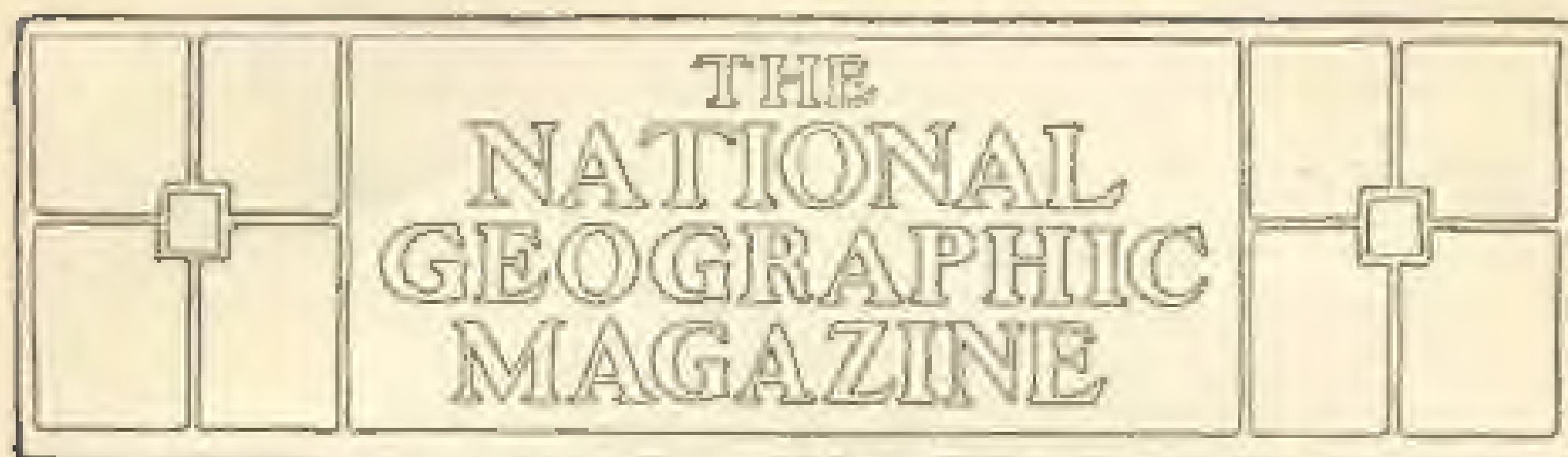
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AN AROUND-THE-WORLD AMERICAN EXPOSITION

By HON. O. P. AUSTIN, CHIEF OF THE BUREAU OF STATISTICS

A FLOATING exposition, carrying samples of our merchandise around the world and putting our merchants in touch with those of all nations, seems to me a fitting American enterprise for the beginning of the new century. The nineteenth century has made the United States the greatest exporting nation of the world; why not begin the twentieth by showing to all the world what we have to sell and how we can sell it?

Exhibitions of the products of industry have proved beneficial to trade wherever undertaken, whether the ancient "fair" or the more modern "exposition." The traveling salesman with his sample cases has become a necessity of modern mercantile success; "commercial museums" exhibit to the dealers of one country the class of goods required in other lands, and the great European nations now send out "commercial missions" to inquire into and report upon the trade opportunities in distant countries.

But each of these methods has its limit of influence. The fair or exposi-

tion is dependent for its success upon the number of people it can attract to its doors, the traveling salesman represents but a single establishment or industry, the commercial museum conveys its information only to the seller and not to the buyer, and the commercial mission gathers information regarding the wants of distant people, but is unable to offer them samples of the goods which its own people have to meet those wants.

Why not combine the valuable features of these various aids to commerce in a single great enterprise—a "floating exposition," which shall carry samples of our merchandise to the very doors of the people whose trade we would foster, and by bringing the buyer and seller into personal contact, establish such mutual understanding of wants and conditions as to facilitate the interchange for which each is desirous?

FIELDS AWAITING AMERICAN ENTERPRISE

The imports of Asia, Oceania, Africa, and the American countries south of the

United States amount to over two billion dollars every year. Nearly all of these importations *are of the very class of goods which we want to sell*—foodstuffs, textiles, mineral oils, machinery, and manufactures of all kinds; yet our sales to these grand divisions in the best year of our commerce, 1890, only amounted to about \$200,000,000, or 10 per cent of their purchases. The annual imports of Asia and Oceania are over a billion dollars, those of Africa over four hundred millions, and those of the countries lying south of the United States about six hundred millions.

Most of the cities through which these two billion dollars' worth of goods are first distributed lie on the seacoast, and could be readily reached by a fleet of vessels loaded with samples of American products and manufactures. It is well known that the lack of practical knowledge as to the local trade requirements, such as methods of packing, kind of goods required, length of credit, etc., is the chief obstacle to the introduction of American goods in these countries, and that until this obstacle shall have been overcome we cannot expect to obtain the share in that trade to which our location and facilities of production and manufacture entitle us.

If a floating exposition were systematically organized, loading one vessel with exhibits of foodstuffs, another with textiles, another with agricultural implements and vehicles, another with manufactures of iron and steel, another with household requirements, and another with "Yankee notions," and sent from port to port and continent to continent, it should prove highly advantageous to our commercial relations with all of the countries visited.

Every manufacturer or exporter sending an exhibit would naturally send with it a capable representative, who could discuss with the local merchant the qualities of his goods and their fitness or unfitness for local markets.

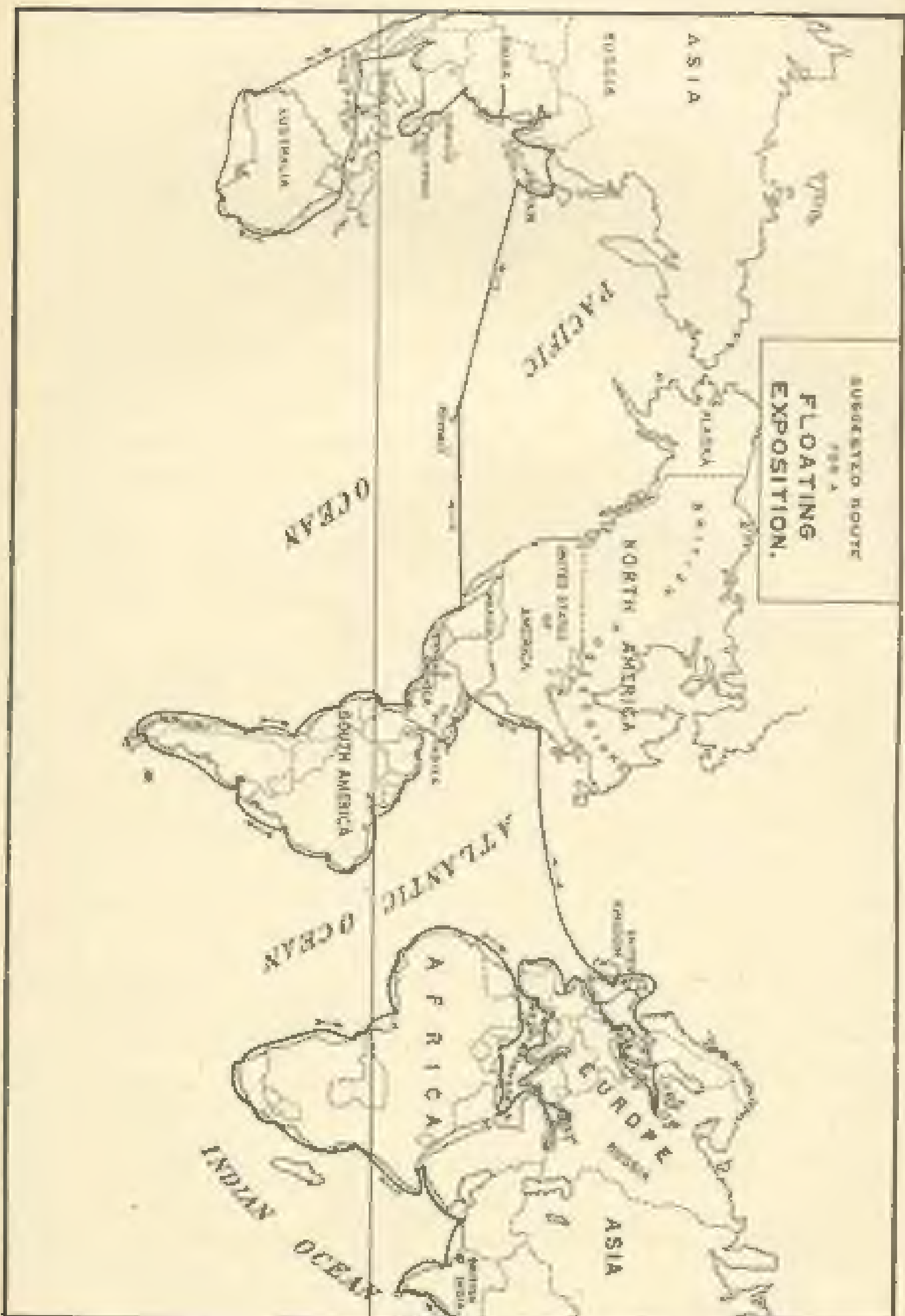
The coming of an exhibition of this character would attract at each port not only the business men of that city, but those of other commercial centers in the vicinity, and by this process the wholesale merchant of the United States would speak face to face with those of every country visited, and in these discussions would learn in a practical way the obstacles which now prevent a free interchange of commerce and the methods by which they can be overcome.

In addition to this, a corps of experts could gather samples of the goods now being sold in the countries visited, the prices obtained, the length of credit given, the banking and exchange facilities existing and required, and other facts which would prove valuable not only to those directly participating in the enterprise, but to all manufacturers and merchants of the United States, by their exhibition in commercial museums and by published reports.

THE FINANCING OF A FLOATING EXPOSITION.

The financing of an undertaking which contemplates sending a fleet of a half dozen vessels for a two years' voyage around the world appears at first sight a serious problem; but present conditions seem to be exceptionally favorable.

The producers, manufacturers, and merchants of the United States are greatly interested in the extension of markets for American goods, and the Bureau of Statistics is daily besieged with inquiries for information bearing upon this subject. The past three years have been exceptionally successful, and yet have shown the necessity of finding an increased outlet for the surplus which the American manufacturers show themselves capable of producing, and it seems not unreasonable to believe that they would look upon a reasonable expenditure for the extension of trade as money well invested. A great world's fair has



just been held at Paris, at which many Americans made exhibits, some parts of which would be suited to a floating exposition such as has been suggested. A great exposition, especially intended to apply to the people of Central and South America, is to be held at Buffalo this year, and its exhibits would in many cases prove a basis for an undertaking of this kind, while another exposition, especially relating to the West Indian trade, is to be held at Charleston. Thus, in the disposition to extend our commerce, to a prosperity which warrants new business ventures, and even in the partial preparation of exhibits, the circumstances appear to be especially favorable.

But there is still another condition which seems even more opportune and advantageous. The Government is the possessor of a considerable number of safe and seaworthy merchant vessels purchased as transports during the war with Spain, for many of which it will not have active use after the close of hostilities in the Philippines. If some of these vessels could be utilized for this work the problem, as to cost, would be greatly simplified.

Congress has always dealt liberally with expositions intended to improve our commerce, either at home or abroad, and it seems not unreasonable to suppose that if applied to by a proper business organization it might loan the necessary vessels for an enterprise of this kind. The appropriations of money made by Congress in behalf of expositions at home and abroad in the past 25 years amount to over \$10,000,000, and in view of this it would appear probable that an appeal from a properly organized association of business men might meet with favorable consideration.

If there could be added to this fleet of five or six merchant vessels a naval vessel or two to convey the fleet around the world and add to its attractiveness and dignity, the success of the enterprise, in-

telligently managed, should be assured. The chief expense which the ordinary exposition must undergo is the erection of buildings. The construction account of the World's Fair in 1893 was 70 per cent of the entire cost. With this expense obviated by the loan of vessels, if they could be so obtained, the cost of the undertaking would be chiefly in the coal consumed in passing from port to port, and in the force of men necessary for the management of the vessels, and this might also be small in case Congress should accompany the loan of the vessels with a suitable detail from the military or naval force for their management.

Whether the expense should be borne solely by those participating in the exhibition in proportion to the space they might occupy, or be met in part by a small charge for admission could be determined by those guaranteeing the expense of the enterprise. In the ordinary exposition the chief receipts are from admissions, and these are drawn entirely from the population of the city where the exposition occurs and from those visiting that city for that purpose, while in the case of a floating exposition visiting great cities in various parts of the world the local population which could be appealed to would aggregate many millions.

THE ROUTE FOR A FLOATING EXPOSITION.

The route which a floating exposition might determine for itself would be bounded only by the limits of the great seas upon which it would float. Starting from the eastern coast of the United States, it would perhaps make its first stop at our new possession, Porto Rico, thence to Cuba and other of the West Indies, thence to the principal cities on the eastern coast of Central and South America, thence along the western coast of America, then to the Hawaiian Islands,

Japan, Korea, Asiatic Russia, the coast cities of China, the Philippines, Spain, the Dutch East Indies, Australia, the Malay Peninsula, India, Persia, Arabia, the eastern and then the western coast of Africa, then a corner of the Moscovite empire and the coasts of western Europe

and thence back to the place of origin, occupying two or perhaps three centuries, and it ran the carrying the American, English and American enterprise to every part of the world. Why not an American World American Exposition to celebrate the twentieth century?

THE CAUSES THAT LED UP TO THE SIEGE OF PEKIN

By DR. W. A. P. MARTIN

I HAVE been asked to give some account of the siege of Peking together with the causes that led up to it, and to prepare a catalogue. No

view of the thirty-three years which have there taken place can be given without first looking upon the *geography of manhood*. Man is moulded

by his environment, and it would not be difficult to show how the character of the Chinese—physical, moral, and intellectual—has been formed by the geography of their country.

Of England we are known to speak, after saturating the vicissitudes of climate of his country, exactly as

"Tall as an iron tree—good country
As it is her land—her land—her land."

A Chinese philosopher would unquestionably adopt without objection every word of the English poet, and he would say specially true of the phrase "her favorite man of all mankind." He reads in the ancient books of his own country a tradition that man was made not of dust, but of clay, the clay being of different colors. The Chinese were made first and of yellow clay—hence they gave themselves the flattering designation of "Men of Gold." Tradition

had to have been a very common among the Thians of the north. In the seventh and twelfth centuries a large part of northern China was subject to a tribe of Tartars, who bore the tribal name of "Ghoul a Horde." The present rulers of China, called Manchus, claim them for their remote ancestors, and continue to wear the same title of "Golden Horde" in the Manchu language "*Junggei Khan*."

SIXTH CENTURY OF CHINA

The regions of the Tartars, and the Chinese from their interior, have been very similar to those of the Nile Valley. The Chinese depended upon agriculture while the warlike nomads of the northern plains subsisted on their flocks and herds without settled homes. They were always ready to make incursions into the bordering provinces of China, and of course succeeded in effecting the conquest of a portion or the whole of the Chinese Empire.

It is a striking discovery that one of most of these Northern Tribes, Mongol or Manchu, has exercised the mastery over China, first in the present century

not in ten hundred years, nor are the troubles caused by them limited to several centuries. For the Great Wall, so large as to form a geographical feature on the surface of the globe, attests a perennial conflict between Tatar and Chinese, for it was erected two hundred and forty

years purpose of keeping the Tatars out. That such a conflict should exist from generation to generation is no matter of surprise. Belshazzar tells us that it began not far from the Gobi or of Kien, and has been handed down from Cain and Abel to the present time. The version of the Bible story is that Abel's sheep trespassing on the cornfields of his brother Cain.

A Chinese historian says of the Great Wall: "It required so much labor for its construction that it was the ruin of one generation, but it was the salvation of all that followed." To me this appears to be an overstatement of its benefits, for while it has undoubtedly served the purpose of a barrier against small bands of marauders it has never succeeded to resist great armies like those of Jenghis Khan. The Manchus, who for two hundred and fifty six years have held the throne in Peking were not under the necessity of forcing their way across the Great Wall. Their gates were wide open for them by the Chinese emperor, Wu Sangwei. He offered their assistance to suppress a band of rebels who had taken possession of the capital, and to revenge the cruelties committed by them, an errand very similar to that of the eight powers now in occupation of China. The rebels were easily put to flight, but when the general offered to pay off his Tatar allies and invited them to retire to the north of the Great Wall, they respectfully declined to go.

An old fable tells us that an ass in danger of being driven from his pasture ground by a horned stag, turned a primitive man to mount on his back and

drive away his enemy. When the stag was put to flight, he asked the man to dismount; but he was an ass to imagine that the man would comply with his wishes.

China finds herself in the same predicament today. Instead of the hordes of Tatars, ranged eternally about under eight banners, she finds herself completely under the power of the eight mightiest nations of the globe. They are in the saddle, with their bit in the ass's mouth, and though that noble beast, like that of the ancient prophet, speaks with human voice and utters a benedictic protest, it remains to be seen whether some of these eight nations will not insist on keeping the saddle in the saddle.

The fact that China is a land long under foreign domination for two centuries and a half is essential to the comprehension of that astounding movement which has so engrossed the attention of the world.

What natives, we are asked, could prove themselves so potent in their effect on a few classes in that empire as to bring about complete factions of high and low for the expulsion of foreigners? I answer that there are three natives which, taken in connection with the alien, will even now, appear to me to be sufficient to account for the phenomenon. They are first political jealousy, second, religious animosity, and last,

not least, industrial competition. These have operated in different proportions on different classes, while in some instances all three have combined to produce their effect on the mind of one class. The existence of political jealousy is inseparable from a foreign domination.

The Manchu dynasty, though it has produced many able rulers, has never been free from the ill effect of that kind of jealousy. The Manchus have always feared, since the dawn of commercial intercourse with the great nations of the west that some of those nations

would endeavor to supplant them in the occupation of China. They have not only been successful in everything, whether commerce, missionary enterprise, or railways and mines, which tend to increase the prestige of foreigners—some of these minor things they have looked upon as a preoccupation with their territory, others as a settlement scheme for winning away the hearts of their people. You will not find, however, that they have never shown themselves, with one exception which I shall only mention very shortly, for the intellectual enlightenment of their Chinese subjects.

The Confucian philosopher, Lao-tse, lays down as a maxim for easy government, in spite no doubt that it is only necessary to let the people's bones and to empty their skulls. On this the present rulers of China—I mean the Empress Dowager and her co-regents—are set by in the suppression of schools, the interdiction of newspapers, and the attempted extermination of Christian missions.

THE EMPEROR'S ATTITUDE—A REMARK BY KWANG-SU

The exception is a remarkable one. It is the young emperor, Kwang-Su, who is to no degree responsible for anything with a foreign power, but is nevertheless regarded as the

young and sanguine Prince of P'ing. Nephew of the Empress Dowager, he was adopted by her at the age of three.

With a view to preparing him for his great destiny, he was provided with numerous tutors, two of whom wrote my own stories. Their duty was to instruct His Majesty in a knowledge of the English language and, in order to be sure that the lessons which they set for him were correct, they always submitted them to me for approval. I am not affirming, therefore, that I am entirely innocent of having exerted some influence on the mind of the young Emperor.

It is impossible that he should not have studied English without becoming infected with progressive ideas. Still, the blame, or the honor of having perverted the mind of the "future successor" (as his name signifies) belongs to Kang Yu Wei more than to any one else. This patriotic scholar perceived the necessity of reforming the educational system of China in order to secure the permanent independence of his country. He gained

credit as no little praise to say that he possessed the intellectual capacity to comprehend the ideas of the bold reformer and the strength of will to resolve on carrying them into effect.

He issued a decree abolishing the system of essays and sonnets in civil service examinations, in favor of the sciences and practical arts of the modern world.

In order to prepare students for these new tests, a system of common schools was to be established, first at Peking, and conforming examples were placed at the disposal of all the schools were to be established in all the districts and colleges in the several provinces, and a new university in the capital for the graduates of provincial examinations and for the sons of the nobility.

Not did His Majesty stop with educational reform. He diligently sought to put away the demerits of the old in order to increase the quantity and improve the quality of his trait. Structures of the Manchu attitude were abolished, and new bureaus inaugurated, such as those for education, mining and taxation etc.

More than all, he resolved to confer on his people the priceless boon of free speech, admitting that even his not officials should have the privilege of addressing the throne without set or ceremony.

This was the rock on which his noble scheme of reform was shattered. A young man, a doctor at the Han Lin, who was well known to me, through a

junior member in the Board of Regents drew up a memorial proposing numerous changes in the administration of the government. His emels, all old men, and mostly Tartars, refused to transmit the document to the throne. The emperor, on learning that they had refused to intervene between him and his officials, flew into a towering rage, and compelled the authors of the memorial to quit, and hence ended a dangerous career from the public service.

Those old men, snarling under the disgrace, posed away in the country, and then threw themselves at the feet of the Empress Dowager, begging her to come out of her retirement and save the empire from the hands of a young man who was losing the empire at a rate so fast that there was danger of his setting the world on fire. She had seen revolt after revolt, but she had never retired altogether from the world of politics. With her mother and party to her, she was for the critical showdown coming.

She was interested with the political chess game in all moves of the world, but her emels had been more or less concerned. Eagerly and she embraced the invitation, and as with a hot net of the fire heavens she struck down the turbulent youth, compelling him to sign a paper begging her to teach him how to govern. By way of justifying her action, she issued an edict in which, among other things, she said that her subjects must not suppose that she was opposed to rational progress. It does not become, she said, that we should stop eating because we have been caught. She meant to say that her adopted son had crumpled his reins down the throats of his people too fast for their digesting. She intended to nourish them with pure and nutritious food in such quantity and degree as would make them easier of assimilation.

We have been told that her dynasty had long maintained this principle of the contrary, throwing herself into the hands of a reactionary party, instead

of progress she entered upon an anti-reform track, in which a disastrous end was awaiting her. She began by ennobling all the educational and other administrative reforms inaugurated by the young emperor.

The only one of the institutions established by him which she permitted to remain was the new university. That institution she did not spare because it had been favored or, as one might say, founded by La Heng Chang, who, by the way, though he had continued to be her faithful servant, has been left a record of irreparable glory as her foremost patron of the new education in a new empire. It was he who recommended me for the presidency of the university, which I may describe as an institution of students of all nations, the Russians having seized on the opportunity to send their barracks and to rear their sons in its halls, and were represented in Russia by a

THE GROWTH OF THE ANTI-FORCE IN CHINA

A little before the war of 1894 Germany had seized a seaport by way of retribution for the murder of two of her missionaries in the south of Siam. Russia secured the cession of Port Arthur as an offset. England insisted on having Wei Hai Wei on the opposite side of the gulf, in order to keep watch on the movements of her northern rival. France, and the rest, protested against being left out in the cold, but was she not a great power as any of these? She demanded that the equilibrium of the political balance should be maintained by giving her the Bay of Kwang-chai, not far from the borders of her Annam Empire. The Empress, who by this time had become Regent for the child emperor, was urged by her friends to yield, and when she refused to yield to these demands rather than to make war without due preparation, she made it known to her people that if any

of territorial status. I came forward with a number of demands, she would declare war with or without preparation. In the meantime she made extensive purchases of war material and sought by every means to propagate anti-foreign feeling among her people as the best safeguard against foreign aggression.

Never had the anti-foreign feeling been at so low an ebb as during the short reign of the young Emperor. An awakening had shown itself among the Chinese people, which might be described as a shaking among the dry rotting. Newspapers in the Chinese language had increased in two or three years from 17 to 70. The publication of the society for the diffusion of Christianity and useful knowledge, consisting not of "Christian science" but of modern Christianism, increased within the same time from \$500 to \$4,000. The whole people were penetrated with a desire for progress, and though they had been recently beaten in war by the Japanese.

They proposed to adopt the advantages of science and learn the best lessons of the West as the surest way of rehabilitation.

When the Marquis Li visited China, the more than two years ago, I complimented him on the influence which his country was exerting on China as a consequence of being her nearest neighbor. I compared it to the tide raised by the moon, as our nearest neighbor in the solar system, but took care not to hint that his country, like the moon, was shining by borrowed light. Yet it is true that the reforms which China and her young Emperor so much admired were borrowed at second hand from these United States.

Immediately on the occupation of Kanton the Germans proceeded to lay out railroads in a direct direction across the province of Szechuan, which they claimed as the sphere of influence, and which some of their newspapers, by way of anticipation, described as "German China." The natives were aroused

much more by these enterprises than by any abstract reason of infringement on territorial rights. To them it appeared terrible that the spirit of their ancestors should be waked by the smothering of their religion, and that cemeteries should be desecrated by the passage of the railroad. They everywhere set upon the engineers and impeded the prosecution of their work. The most active hindering this opposition were the members of a secret society called "Boxers."

THE RESISTANCE TO THE BOXERS

This society is not a new one calling for existence, as has been supposed by the Western missionaries. It has existed for

give trouble more than a century ago to the Chinese Government, and in 1807 was formally placed under the index of forbidden associations. Since then it has languished in obscurity until recent events called it into being, and until the favor shown it by the Empress Dowager transformed it into a great political party. The doctrine to which it owes its existence is not orthodox Confucianism, and is not, as the Westerners put it, a superstition based on hypocrisy, mediocrism or spiritualism, as it is variously called.

Among its adherents are many whose nervous condition fits them for spiritualistic mediums, and through these the society gets oracles from the unseen world. They undergo a species of drill which is intended to enable them to enter at will to go into the trance state. When in that condition they profess to be endowed with supernatural strength and rendered bullet proof. These mysteries, so popular to the common classes, were particularly attractive to

the masses with foreign
organization spread like

and the Manchou governor, finding that these people an auxiliary force supplied them with arms.

The Empress Dowager and Prince

Them encouraged them to come to the capital. In their levastatig march they killed men, women, old women, children and villages; nor did they spare a foot of money or a village which was not Christian and which excited their cupidity by the rich wealth it offered. Reaching the vicinity of the capital, they tore up the railway leading to the west and burned down the stations near the city. Then it was not till then, that the ministers in the capital awoke to the seriousness of the situation. Missionaries had been reporting their losses and war news, but the mandarins were careless in formation to the Tsung Li Yamen, the official organ or foreign office of the Chinese Government. They were here told that these Boxers practiced an unmerciful kind of gymnastics and if they did sometimes show themselves turbulent and disposed to quarrel with natives & Christians, it was not without cause, and the Empress Dowager intended shortly to issue a decree and assign them to their homes. Such decrees were issued, accompanied by secret instructions not to regard them.

THE SIEGE

The meaning of the destruction of the railway was not as the mandarins stated. The ministers, who were waiting for the orders of the Chinese Government, ordered a great number of soldiers to be sent up from the rearward, and they arrived at a day or two later. The next day the railway to the east was also broken up, and had not their arrival been delayed forty eight hours the foreigners in Peking would have lived to tell the tale. They were only a small number, but their mere presence for a time befell our enemies in check and they served even more to make good the defense of the legations.

On June 13, a fortnight after their arrival, an attack of the Japanese Legation was made at the railway station by Boxers and Chinese soldiers combined. This may be regarded as introducing the

first stage of the siege. For the next nine days the Boxers were specially prominent, setting fire to many churches and houses and houses, but burning mostly the native storehouses where they suspected of containing foreign goods. Square miles of ground were left by the Boxers covered with a mass of the rich and luxurious houses in Peking. On June 19 a circular from the Foreign Office informed the foreign ministers that the admirals had demanded the surrender of the forts at the mouth of the river. This, said they, is an act of war. You must now quit the canal with all your people within four and twenty hours. The ministers agreed to proceed against the severity of this communication. The first to set out for the foreign office with this purpose in view was Baron von Ketteler, the German Minister. No sooner had

reached the great street than he was shot in the back by a man wearing the official costume of the Chinese Government, and fell dead. His interpreter was wounded, but succeeded in making his escape and giving the alarm.

The other ministers believed that a general massacre had begun and with their people, who had already taken refuge in their several legations, they fled precipitately to the British legation, which, having been the residence of a high prince, covered a large space of ground and was surrounded by strong walls, forming a kind of camp of refuge. It had accordingly been agreed upon as a place to make a stand in the last resort, and Sir Claude Martin did not only generously welcomed his colleagues, but received all the Europeans, whether civil or military. The missionaries were accompanied by their converts, Catholic and Protestant, to the number of nearly two thousand. For the converts or asylum was secured in the grounds of a Mongol prince on the opposite side of a canal from the British legation. Professor James, the Russian, was chiefly instrumental in securing it was

himself slain by the enemy in the afternoon of the same day. Had the enemy followed up to our advantage, letting it, perhaps, in the midst of our last confusion, have overwhelmed all the legations, but they feared to come to close quarters.

Some of the outlying positions were unoccupied by fire, but most of them were manned within our line of defence. None of them, however, except the legation of Great Britain, was considered safe for the residence of a diplomatic family.

Within the gates of the British legation, which covered six or seven acres of ground and contained two or three different buildings, were congregated nearly one thousand foreigners and from this time for eight weeks we were closely besieged, not by Boxers, but by the soldiers of the Chinese government. That very evening at eight o'clock, they opened with a terrific fusillade, and this was renewed day after day, chiefly under cover of night, so that we came to speak of it rather as our night rally as a "serenade." It was not, however, a together methodical or day by day salvo of fire men were killed or wounded among the soldiers, which were occasionally made to drive our assailants back or to secure their batteries, the casualties were always serious.

What we most dreaded was the fire-ram, and when the ruthless enemy with more than half a dozen, set to the library of the Imperial Academy, for the purpose of burning us out, we all had to assist in fighting the flames. Women and children, including the wives of our officers, passed buckets from hand to hand. A charge of wood came at the legation was saved. At five o'clock we assailed us only with fire and small arms, gradually, however, they got guns of considerable calibre in position, and at eleven o'clock the day attacked us with shell and round shot.

Mrs. Conger, wife of the minister, in whose family I was kindly received as a guest, had embraced the ideal philosophy of fast up or never, and looked on all this persecution as a play of the imagination. I comforted her by conferring

on her a six pound round shot, told her how heavy and solid to be reserved as a last resort.

Her philosophy as to her Christian faith was one of the most admirable women I ever knew. Calm and untroubled in the midst of danger, she recalled the description which Pope gave two years ago of his ideal woman, as "Mistress of herself though China land."

Mr. Conger a good soldier, who fought through all the years of our civil war and returned with Sherman from Atlanta to the west, met the trials and exigencies of this occasion with becoming fortitude and cool judgment. Up to almost as well as a doctor, he kept us busy to-day with the most serious questions that confront him as to the fate of this Chinese problem. His daughter, Miss Conger, had visited many winter cures in quest of health. The first cure to which she was now exposed to be the required result. On the first day she threw herself weeping into her father's arms. The next day she lay down in bed calmly, and then from that day she seemed to enjoy the new brightness and she came out of the siege restored to perfect health.

I have asked how we spent our time. I answer there was no idleness and no selfishness. Every man had his post of duty. Mine was to serve as inspector of passes at the legation gate for Chinese going back and forth between the legations within our lines. There it was my sad lot to see many fine young men go out full of life and hope, to come in wounded, maimed and dying. We lost many, killed and wounded, more than a third of our number.

If we are asked what we lived on I answer, the crust of bread and the

of meat. The meat was that of various animals, and occasional fowls, even that was so tediously scanty that only three ounces per diem was a fore and third oil. Milk was a luxury even condensed milk beyond our reach, and no fewer than six or seven infant children perished for want of it.

While the men fought or mounted guard the women and sand bags and bayonets to the walls, and a host of many thousands for the strength and effort of the bombardment. As their faith wavered and hopeful words they strengthened the arms of their brave defenders.

One morning it was decided necessary to make a desperate effort to regain possession of a portion of the city wall, which dominated these legions. A company of some 600 men—American, British and Russian—was formed, under the lead of Captain Myers, of the U. S. Marines. When ready to make the attack, and hoping to make the enemy surprised, he made a short speech.

"My men," said he, "we are under obligation to these women and children whose lives depend upon our success. If we fail they perish and we perish with them. So when I say 'GO,' then go."

The Americans and British were thrilled by his words, and the Russians understood his gestures. All felt that it was a forlorn hope, and all were ready to lay down their lives to insure success.

The brave men proved successful, and that portion of the wall remained in the possession of our men until our rescuers entered by the water gate beneath.

THE AFTER

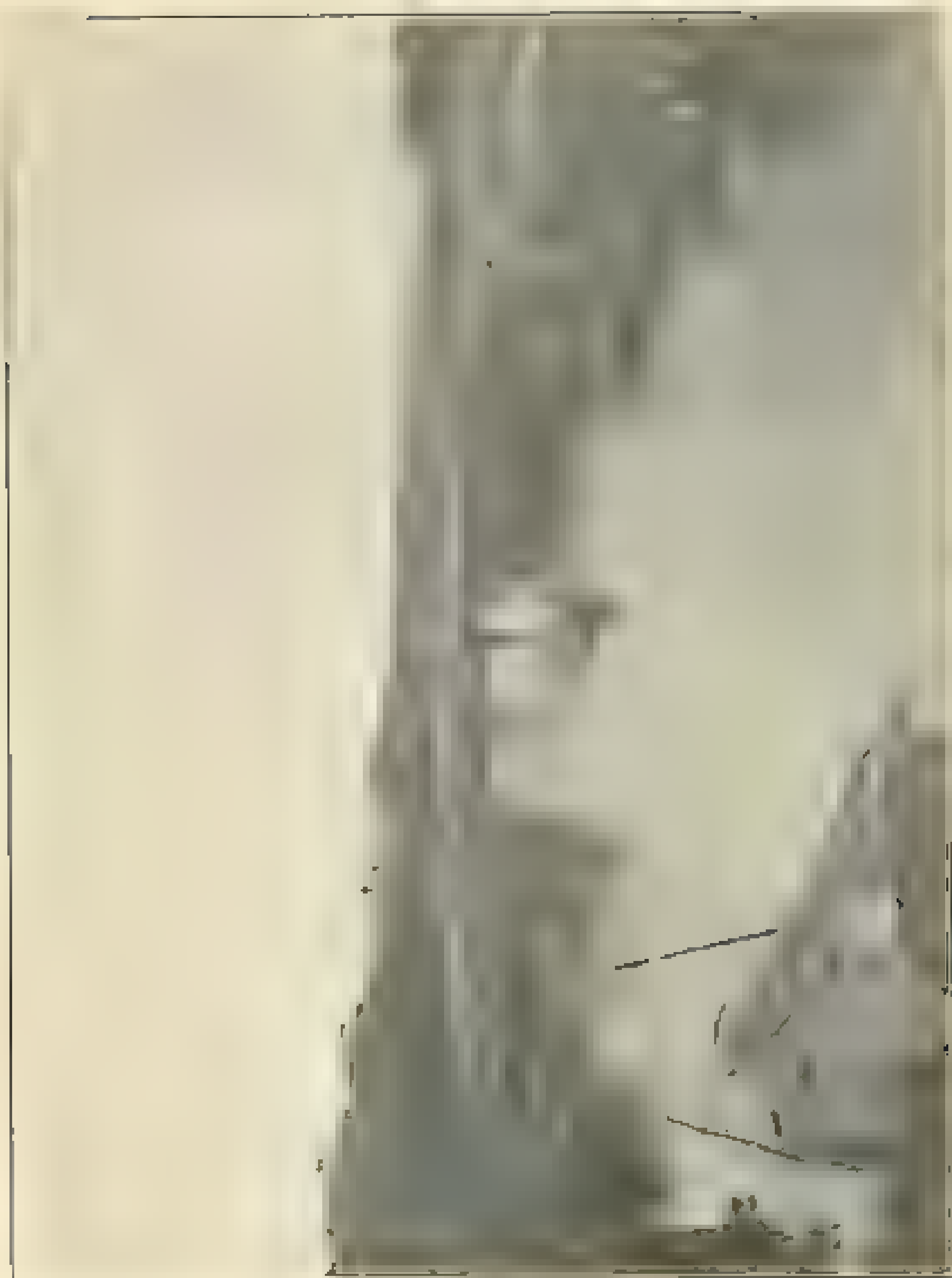
When the siege began we expected relief in a few days, but when Seymour's column was driven back we tried to wait with patience for the coming of the grand army under the eight banners. Yet so closely were we shut up that we had no means of communication as to its move-

ments, and our souls were sickened by our own defeat. At length, when our provisions had run almost to the lowest ebb, when we had barely a rat for only two days more and bread for no more than a fortnight, so that starvation actually started us at the face, one night on August 14, a sentry rushed into Mr. Conger's room, where I also was trying to sleep, and called out, "They are coming, they are coming, the army of relief is here, every one!" The instant that I were sent in the open air; we did not wait to put on our clothes for we had never taken them off. We heard the machine guns playing on the outer wall, and we heard the sound so sweet. It was like the bagpipes of Haverhill's Highlanders to the ears of the besieged at Ladakh. The ladies were awakened, and soon men and women poured out from the battlements and lined with irrepressible excitement to the music of the guns. Women threw themselves on each other's necks and wept, while men grasped hands with foreboding leap for a future war.

The next morning the great gates of the legation were thrown open, and a reinforcement of Indian cavalry. They were, I thought, and I have no doubt every one of our besieged got into it, and at the same time, the finest men I had ever looked upon.

The siege was ended. The rest of the army entered by the great front gate of the city, the key of which had been captured from the living enemy by Captain Squires, of our legation, who is one of the heroes of the siege. The next day we all joined in singing a Te Deum in the tennis court of the legation, and Dr. Smith in a short address pointed out ten circumstances in each of which the finger of God was visible in our deliverance. He said it have exceeded ten thousand. After thanking God, it only remains to thank our noble friend, Lord, for having dispatched the army and navy to our aid without waiting





to call an extra session of Congress. I feel proud of my country for the reason she has established on this occasion, not only taking her place among the Great Powers and having interests as wide as the world but showing that her states are wise enough to protect and rescue her people in all parts of the

INDEMNITY FOR NATIVE CHRISTIANS

The curtain has not yet fallen on the last scene of this tremendous drama. The Empress at Peking courted the city a month at the moment when our troops entered it, and she has taken refuge at an old hospital in one of the flat western provinces. Whether the

will be really asked at Peking probably will. For my own part I think the termination of the young Emperor

who might carry out his progressive measures under the supervision of the Great Powers, offers the best solution. The integrity of the empire would then be maintained and possible conflicts between European demands averted.

China must, of course, pay a heavy war indemnity. It is understood that not only the foreign nations, but individual foreigners will be indemnified; and no assurance is given that any compensation

will be made to native Christians, whose houses have been burned and whose relations have been slaughtered. Diplomats and military men have just acknowledging that but for the reinforcements supplied by those native Christians, the defense of the legations would have been impossible. It was, however, formed the horrible office of novices to building barricades, digging trenches and countermining against the enemy. If in services we are indispensable to the common safety.

I cannot believe that any Christian country will consent to the gross injustice which is involved in excluding her from the provisions of the indemnity clause.

The greatest enemy to the orderly and profitable intercourse of nations is heathen darkness. No restriction, therefore, should in any way be placed on the operations of missionary bodies who seek to dispel that darkness, and to diffuse the light of science as well as religion. Without these our way and our progress, there will be no sure, and we can have no assistance. At that monster, the dragon, who has now been cast down before the Soldiers of the Cross will not again raise his head and bring about another catastrophe similar to that which has so lately horrified the world.

SINGAN—THE PRESENT CAPITAL OF THE CHINESE EMPIRE

SINGAN owes to its position the distinction of being for at least the fifth time the capital of the Chinese Empire. The plain and valley in which it is situated is marked out by nature to be the center of the national life. Through it flows the Weiho, along whose banks lies the great road which leads

from northern China into Central Asia. Near the city the river is joined by a northern tributary, the Kinkia, and running east, it breaks through the mountains by the "gate of Tung-kian," where there is a famous fortress of the same name. This gives an easy access to the eastern and coast provinces. In

Mountains, was

between northern and central China.

The assemblage of these unrivaled advantages, trade routes from every direction have converged, have from time immemorial made it a place of great commercial importance, famed for the enterprise and wealth of its merchants. It is the trade center from whence the silk of Chekiang, the tea of Honan and Hapeh, and the silk and sugar of Szechuan are distributed to the markets of Mongolia, Turkestan and Kucha in exchange for camels, musk, medicinal plants, opium, wool, and furs.

The valley of the Weiho is one of the granaries of China, and thereby itself is a the rich of a vast wheat field. The coming from the east passes here and continues

highway—for China, with a ditch on either side, rows of willow trees here and there, and substantial stone bridges and culverts over the little streams which cross it. The city is surrounded by a high wall, said to be forty miles in circumference, with four huge gates flanked by magnificent towers. The principal streets are well paved, and full of good shops, together with palaces, imposing temples, and government buildings.

One of the few European travelers who have visited Sigan, the Rev. A. Williamson, says that it appeared to be "densely filled with houses, having little or no vacant ground or gardens as in other cities." At that time, 1866, it was the residence of a Roman Catholic bishop, who claimed that there were about 20,000 Christians in his diocese. Its population is variously estimated from five hundred thousand to a million souls. Michaels, who visited it in 1874, writes of the courteous treatment which he received wherever he went from the crowds which thronged the streets.

Though Sigan contains no buildings of special dignity, a mosque built in the ninth century is probably the oldest structure—the famous Pavilion, or "Forest of Tablets," is the most valuable archaeological and historical museum or library in China. There are tablets which contain decrees of five dynasties from Hsia to Ching. Others are a variety of specimens of elegant calligraphy and drawings of well-known mountains and historical scenes. There are also emblems of animals, sacred birds and likenesses of latter great men. Among these is a full-sized portrait of Confucius and several of his disciples. The most celebrated of all are the Tao-te-chi Classics, cut in stone, dating from the Han dynasty, far anterior to those in Peking, now so famous. The most interesting monument of past times to the occidental visitor, however, is the Stele to let, commemorating the introduction of Christianity into China. On it is an inscription in Syriac and Chinese characters giving first a vague abstract of Christian doctrine and then showing this passage:

"In the time of the accomplished Emperor Taitsung, the numerous and magnificent founder of the dynasty, among the enlightened and holy men who arrived was the most virtuous Adonis from the country of Syria. Observing the azure clouds, he bore the true sacred books, heaving the direction of the winds, he braved difficulties and dangers. In the year A. D. 634 he arrived at Chang an. The Emperor sent his Prime Minister, Duke Pang Huen-ming, who, carrying the official staff to the west border, conducted his guest into the interior. The sacred books were translated in the imperial library, the sovereign investigated the subject in his private apartments, when, becoming deeply impressed with the rectitude and truth of the religion, he gave special orders for its dissemination."

The imperial proclamation, which is

given, commends the principles of this new religion and mixes with these words: "Let it be published throughout

and a Syrian church in the capital in the Lampi Way, which shall be governed by twenty priests." Then comes a summary of prominent events connected with the "Illustrious Religion" and a recapitulation of them in an octosyllabic verse. A. D. 631, "in the second year of Kienchiang, of the Tang dynasty, on the 7th day of the 1st month, being Sunday," and the

seven priests in Syriac characters and sixty-one in Chinese.

The tablet which is said to be the oldest Christian inscription yet found in Asia, was discovered in 1623 and is now to be seen in Louren's church walls amid heaps of stones, bricks and rubbish. Its preservation is due, strange to say, to the care of a Chinese, as an inscription on the edge of the stone shows.

It is to the effect that, in 1623, a missionary Hansai who, from Wu-ha, had come to visit it, and had found the characters and ornament in perfect, and that he had re-built the brick covering in which it stood. The last words refer to "Al's" that my friend Winstonein was not with me, that he also might have seen it. On this account I am very sorry.

The tablet is, or was, if it may have been destroyed in the fanatical hatred of and to the foreign which has taken possession of the people—a striking witness

that over the Chinese a thousand years ago and in the nineteenth century, for this restorer and his friend must have been native Christians.

It is remarkable that he again befriended with the greatest men whom China has produced and with the most glorious epoch of Chinese history. This is true of the year, B. C. 1122, when it was first made the capital of

the Middle Kingdom by Wu-wang, the founder of the Chou dynasty.

In the period of ancient Chinese history says Dr. Wilsa Williams, "is more celebrated among the people than that of the founding of its dynasty, because of the high character of its founder

as the impersonation of everything wise and noble. The Emperor, with his fairer and nobler ranked among the most distinguished men of antiquity for their erudition, integrity, patriotism and reverence." It was then known and for many centuries afterwards, as Changan or "Eternal Peace"—a name which served as that of one of the quarters of the modern city. In B. C. 246 one of the greatest rulers of China ever had chosen for his residence. This was Chi Hwang, the "first universal emperor." Though a boy of but thirteen years of age when he ascended the throne, he speedily showed great capacity for governing and as a warrior. To improve the communication between his capital and the provinces he constructed magnificent roads and bridges, some of which remain to the present day. This work was carried on by his successor, who is said to have spanned the valleys of the neighbouring mountains with suspension or "flying" bridges, thus introducing western science by twenty centuries.

But the "universal emperor's" fame as conqueror of the Tartars and the builder of these public works and the Great Wall is eclipsed by his untiring efforts to secure certain reforms. He had become convinced that the former worship of the past which characterized the teaching of the scholars was fatal to progress and full of danger to the state. He determined therefore to break once and for all with the past and ordered that all books having reference to the past history of the Empire should be burned. This decree which was almost universally obeyed and with considerable loss of life, apparently but strength-

ated the evil against which he was striving. It is a significant commentary on his act that in the Chinese schools of today history later than the accession of the present dynasty, 1644, is not taught. The literati, it may be added, disregarding the true reason of his decree, attribute it simply to his vanity—the hope

"that he might by this deed be regarded by posterity as the last emperor of the Chinese race."

Nearly nine hundred years later Sui-gan is again made the capital by T'ai-sung, who so cordially welcomed the Nestorian priest. He was "famed alike for his wisdom and nobleness, his conquests and good government, his temperance, cultivated tastes, and patronage of literary men. He established schools, and instituted the system of examinations, and ordered a complete and accurate edition of all the classics to be published under the supervision of the most learned men in the Empire."

It is probably not too much to say that during his reign this now almost unknown city was the center of the most advanced civilization that existed at

that time on the earth. Soon after his death the dream was marred for twenty-one years by a woman, who leads a remarkable resemblance to some of the Dowager Empresses who now exercise supreme power in this ancient city.

In our own times Sui-gan is noted for the brave and successful defense of its inhabitants against the Mohammedan invaders in 1855, although there were some traitors of their coreligionists within the walls. These were compelled to signure their faith on pain of death, and to put up with their blasphemous inscriptions to the emperor and to Confucius.

The situation of the city, over six hundred miles from the coast, and as impragnable to any force that it is likely could be brought against it will probably make it seem for the interest of the present rulers of China that it should be once more the permanent capital of the Empire. From its history in the past we may hope that this will be the presage of a era brighter for the Chinese than that which is apparently closing.

JAMES MASCARENE HUBBARD

THE MIDNIGHT SUN IN THE KLONDIKE

AFTER the long dark dreary days of winter summer approaches with marvelous rapidity. Before the snow has all disappeared the days are twenty-four hours long, and there is no need for candles or lamps during the months of June and July and part of May.

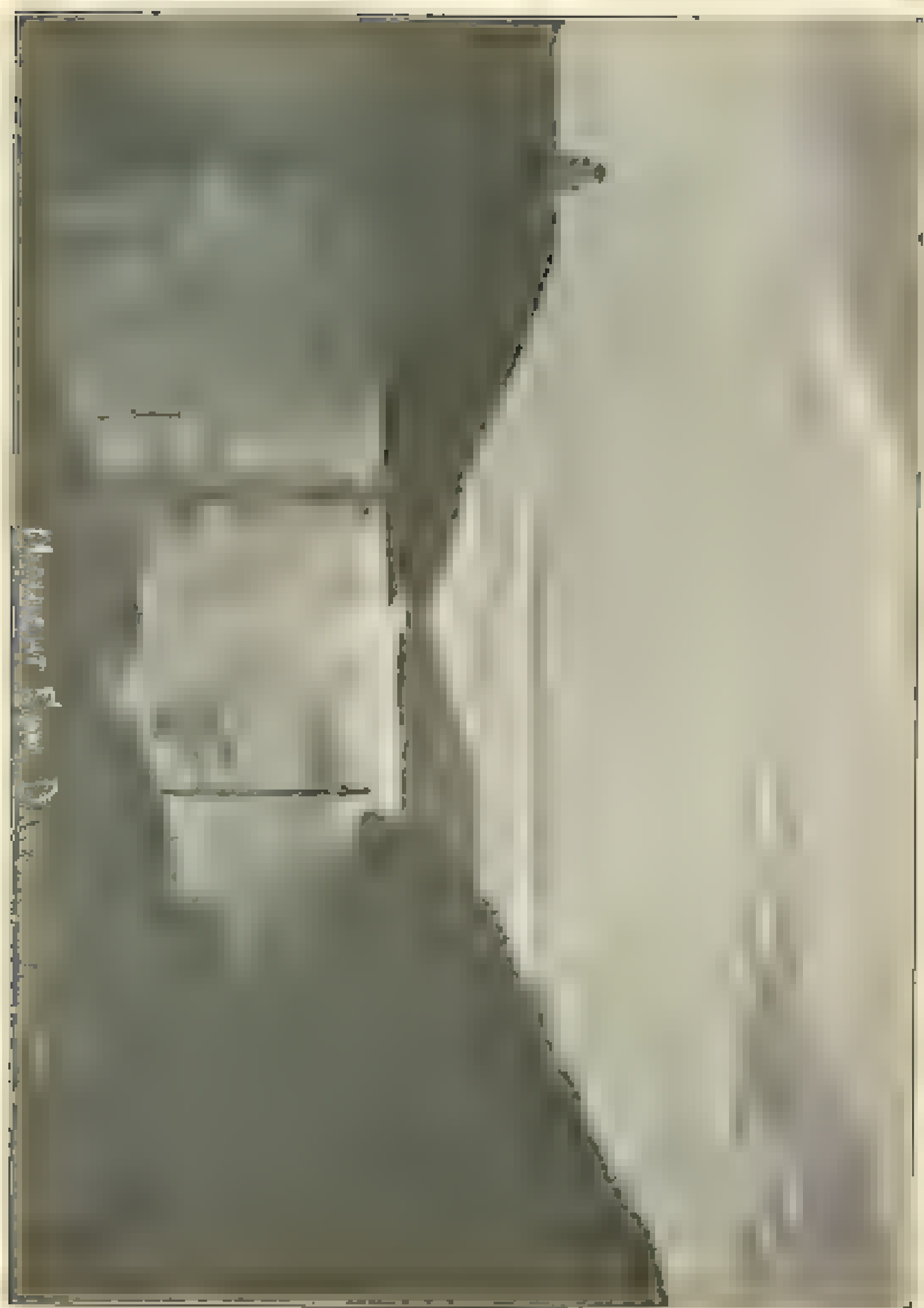
About the middle of June photographs can be taken quite distinctly at midnight. Many, fond of climbing, like to mount the highest peaks and watch the sun at midnight. If the night is clear, they are well repaid for their climb. There is a strange, weird look about the sun at such a time—a sort of tired look, as if he would like to disappear below the horizon for a little rest, and then mount

in the morning like a giant refreshed.

He marches steadily on, and just as we think he will descend below the city line, he gradually turns eastward and heavenward and so begins to shed the lesser light which he has and warms. We then turn homeward, for if caught too far from home when the sun has regained height and power, we shall need no need for walking, as the summer days in the Klondike are fiercely hot and wearying.

What a contrast there is between the dark, sunless, icy days of winter and the bright, glaring, almost unbearably hot days of summer!

ALICE ROLLINS CRANE





THE NORTHERN LIGHTS

A I have watched for a display of the Northern Lights and have been rewarded by seeing one of the most beautiful displays nature can afford.

At its first appearance the Aurora is hardly noticeable, but in a few minutes the brilliant luminous cloudlet enlarges and rapidly rushes from east to west and from west to east across the northern sky.

Sometimes the phenomenon will dip down almost to the earth and envelope in its bright folds tree tops but a short distance away. Then it puts on its trim of a runner reaching the earth and allowing one to look through its iridescent bars to the hazy landscape beyond.

It shines steadily for a while, then suddenly, as though a gentle breeze were blowing with its deity, the brilliant flame

quenched, and at last rushes along from side to side, like the opening and shutting of a silvery fan or the wings of a

swallow, and is playing gently itself on the wings of a storm.

I have never noticed the rainbow colors depicted in some paintings. The light was more like steam rising from it, both fully dominated by a beam of electric light.

Then as times it would gradually fade till it resembled phosphorescent waves marking the progress of a ship.

At such times visitors wearing into an cabin from the dry, crisp air would feel off the sensation of a cold shock of electric sparks, our blankets and fur coats, if rubbed, would give out a succession of sparks and our hair would fly around away from the head like quills on a porcupine, and if brushed would snap and sparkle very distinctly all the time clinging to the brush or to anything placed above the head. I have walked to the stove and with my knuckle drawn a spark from the metal top half an inch long.

ALICE ROLLINS CRANE.

JAPAN AND CHINA—SOME COMPARISONS

BY COMMANDER HARRIE WEBSTER, U. S. N.

India and Japan are not comparable, because their racial, racial, and ethnological differences are so marked as to make comparison misleading.

But the writer and more confined the field of observation the similarities are the differences remarked. The observer will have to assert that the Chinese man's eyes are as horizontal in their upper axis as are ours. The assertion is quite correct. The smiling effect is caused by the configuration of the eye-

crow, and to some extent by the tendency of the Chinaman to keep his eyes partly closed due to the absence of a projecting visor or peak in their head coverings. As a matter of fact, the eye sockets in the Chinese skull are shaped and arranged practically as are those in the Caucasian. Examples in support of the position here assumed might be multiplied, but thus, the most common see is sufficient to substantiate the contention.

The Japanese hold the position of

bring the most progressive people of which history gives any account, nor the most singular fact in connection with its progress is that its genesis was spontaneous, and its influence or pressure being strong it is hard to effect the tremendous changes in the governmental system and methods.

The change was a complete revolution, was carried out with practical unanimity by governors and governed alike.

A point seldom or never noted by travelers or writers on ethnology, a subject is the odor possessed by the various tribes of men, and I fear want of a better phrase I will call it the "race smell."

The race smells of several members of the human family are distinct enough to influence not only their neighbors, but the domesticated animals of other races. Witness the race smell of the North American Indian, sufficiently marked to be disagreeable to white nostrils, and to be a source of alarm to our horses and dogs.

From observation I am led to conclude that the accidents of clothing, hat, etc., and even customs are operators upon the race smell, as we doblers, increasing or decreasing to a small degree according to circumstances. Witness the strong race smell of the Negro, persisting as a type in the entire race, centuries of civilization.

The application of the foregoing to the nostrils of other members lies in the fact that the race smell of the Japanese is well got us to be scarcely recognizable while the Chinese and the race smell so well developed as to be easily noticeable in any considerable mass. Its marked feature is that it produces a distinct coughing in the end of the nose in the European, and once experienced will never afterwards be forgotten. The Chinese man says we smell like sheep, and our race smell is as disagreeable to him as his is to us, another and never applicable proof of the old language of "*de gustibus*."

In Japan one looks in vain for exam-

ples of bygone architectural glory, for the remains of bridges or monuments, roads or temples, and the idea impresses itself upon the mind of the observer that Japan is a new country, that is past.

China, Korea or India. But this impression is steadily forgotten when an examination of the literature, laws, language and art discloses the fact that Japan counts her history by thousands of years, and that her literature contains examples written before the day of the Roman Empire. We are shown pieces of bronze work two thousand years old. We look upon an emperor who is the one hundred and twenty-fourth of an em-

We are impressed with the national virility which can alter so many centuries of existence, so entirely modify its system of government and sympathy with the ideas of today, and follow up that tremendous change by adopting the best the western world has to offer in every branch of human thought, and adopting itself as a people to the use of all those ideas which form the difference between the primitive of yesterday and the world of to-day. Whether the adaptations are successful is not pertinent to the subject. For looking at the note of the Japanese note it is explained by her leading men we see that, touched it is true, by the environments of their traditions and history, Japan is well in the forefront of the family of modern nations.

In China on the other hand, but little of interest presents itself which is not a monument of a long departed glory. Splendid bridges, huge gateways, lashed to stone, enamel friezes, remain unregarded everywhere for beauty and fitness of design a literature stretching back beyond the limits of any written history, outside of this page on, re. China is of the past. Her dreams are all reminiscent; her efforts are expended in

preserving what has been created rather than in producing anything of credit for

It must be conceded that the signs of past activity in nearly every direction of human thought and labor compare favorably with the remains of any nation, and with that China is satisfied. Progress and the maintenance of the great powers to the requirements of modern needs find no favor with the average Chinaman, and perhaps it is in some sense just that for *an ancient people* that it is so, for if the Chinese have not advanced and been completely possessed by this singular and very gifted race were earnestly applied to the problems of modern life it is extremely doubtful if the true actual superiority of the Chinaman would be so much in evidence as appears at present.

In real mental power, in the ability to grasp the most abstruse conceptions, I doubt if there can be found the equal of the better class of Chinese scholar.

The native of Japan and his yellow brother of China have, however, a marked characteristic in common and so peculiar is this trait and so important as an indication of temperamental origin that I think sufficient stress has now been laid upon it by ethnologists and observers. I refer to the persistence and infinite patience shown in carrying out the greatest works without the aid of machinery. "Infinite repetition of successful effort" and "careless labor" in the minds of the people of these two nations time is not an element entering into calculation and the cost of a piece of work is apparently computed with sole reference to the quantity of labor expended without taking into account the time as such.

The native of Japan is willing to admit that he is not the original—that is, that he surpassed a preceding race—and in doing so either absorbed or destroyed that race.

Not so the proud and haughty son

of the Son of Heaven. He aspires to be first in everything, and in consequence has convinced himself that his race is the only one ever to abiding the land where reigns the Celestial Empire. The Chinaman contends that he is a original, the only true human born, and that China belongs to the Chinese because no other race ever occupied the soil.

It must be admitted that the argument is on the side of the Chinaman, for no history or literature contains the slightest mention of his predecessors. The written records of Japan and China are daily becoming more accessible to the western scholar, and, notwithstanding the disbelief in their accuracy and value, these ancient documents will probably give as much real history as either ancient records of nations later known to the scholarly world.

In the matter of domestic architecture Japan and China are at the antipodes. Throughout the Mikado's Empire the people inhabit structures of wooden framework surrounded by paper walls, so that a fierce wind will often blow the sides of a house in on one side and out on the other. The roofs of these slight but airy houses are, however, of strong and heavy timbers, bearing a covering of earthen tiles or thick matting. The ancient and unimproved constructions of Japanese cities are altogether as inferior as to be regretted, on the contrary, the huge fires which sometimes consume hundreds of dwellings are looked upon as blessings, their cleansing and sanitary effects more than offsetting the material losses.

The almost painful cleanliness in a Japanese house is a never-ending subject of comment by foreigners, and the heartiness with which the mud is of mud work, rub and scrub and clog with water every available bit of wood work is a real revelation of the innate cleanliness of the "little brown man" and his belongings. The result of all this persistent cleaning is that throughout the

Empire not an evil soil nor a happy spot can be found. The vile is increased by the collection and transport of human excrement and fertilizer are forcible proof, though not apparent, marks of the pervasive spirit of cleanliness throughout Japan.

With the Chinaman all this is almost exactly reversed. A Chinese house is built in the most substantial manner—of stone or tiles. It is, in fact, becoming as a true proverb, intended to last forever and its demolition, when near, is not especially keen. The condition of the streets in a Chinese city is really staggering to behold. The vile odors arising from the nameless filth of a street of a populous city cannot be adequately described.

Although in domestic architecture these two peoples are so fundamentally different, their ecclesiastical constructions are strikingly alike. A Buddhist temple of Japan might be set up in China and little difference would be noted in the building itself, but in its ornamentation, exterior and interior, especially in the images and figures, a marked dissimilarity is observable. In the Chinese temple there is a certain grotesqueness and inequity which is lacking in the Japanese figures. Not only is this true of the modeling and action, but in coloring the difference between the artistic sense of the two nations is very striking. The acute observer can readily assign to a colored figure its correct origin by these characteristics of the two nations whose ecclesiastical art has a common genesis. It is proper to note, however, that in neither example do these artists of the far East approach in any degree the western standards.

The charity or mercy to others among the dwellers in the Celestial Empire are the wonder of the western observer. The altruistic form of conduct centuries of civilization has expressed in charity as comprehensive in its methods as it is universal in its expression. In China

there is scarcely a type of misery, of poverty, or securities of distress without its corresponding charity among the more fortunate classes. In fact, charitable organizations are not confined to the rich, but among the poor themselves are everywhere to be found as for the amelioration of the condition of those occupying the same straits down to the very bottom of the scale of misery.

The sick, the aged, the wounded and maimed, the blind, the lame, the laborer, the young, the old, the living and the dead—all in need of food, clothing, medicine, shelter, assistance, comfort are the objects of deep charity. Able men, women, children, whose constant work for the betterment of their less fortunate neighbors, seldom or never apply for assistance in their good work. Even the few non-members of some guild or society. Not only are the distressed and sick assisted, but the poor, the laborer on the land, the bearer of burdens, is the object of care and charity and a place near the streets, crowded with jokers, "joke coaches," and wheelbarrow carriers, large earthenware jars of tea are set out, furnished with cups, for the use of those who have no season of rest save on the completion of the task in hand. And it is a pleasant sight to see the smile with which a well-dressed Chinaman will hand a cup of tea to his ragged, sweating brother, hardened almost to exhaustion and parched with thirst. In these charities, as in all other things, the Chinaman is practical and fine-spun theories give way to the actualities of every-day life.

In practical philanthropy the Japanese and the Chinaman are widely separated, for notwithstanding the fact that considerable organizations exist and flourish among the subjects of the Mikado, they are neither so numerous nor so far-reaching as with the subjects of the Son of Heaven. The Japanese altruism deals rather with theory than with facts, so that the whole difference may be put

is a notable by the phrase, "The country does much as I say and the Japanese say much as I say and be lie be lie is true and, however, the poor and crippled possess special privileges never interfered with by their more fortunate neighbors. It is said that robbery from a beggar is an unknown crime in China and Japan."

The "Putter's Fall" has no existence in China—the guilt for the burial of the dead is not that a corpse is unprovided with a coffin and a definite burial place. During my stay in Shanghai a terrible accident on the Yangtze had resulted in the wreck of the steamer *Chih Hsing*, the drowning of several hundred of coolies packed for passage up the Yangtze. These men were of the very poorest class of laborers, and as their bodies were left at the bottom few were identified as factors or reserves for burial. Under the personal supervision, however, of a local magistrate, no member of a burial society, every abandoned body was placed in a decent coffin and properly buried after the Chinese style.

Among the Japanese the practice of cremation has long been in vogue, and this method of caring for the dead is adopted for the safe disposition of the remains of those dying without friends or money. In fact, on account of the ravages made by cholera at intervals, the crematorium has become an adjunct to nearly all the communities of the Empire. Among both peoples, however, public beneficence is a recognized institution, and the street beggar is sure of alms, so it must strike the thoughtful mind that our western civilization does not possess a monopoly in charity either organized or individual, and that altruism is the property of the human race rather than of any particular nation or family. These far eastern benevolent institutions would surely bear comparison with any mentioned in history.

In the eyes of the Chinaman the soldier is a man defiled by blood, and in the social scale the highest place is placed the popular executioner with the butcher the runner-up, the repairer of the dead the third rank. It follows from this that the reputation of the Empire for its defense is not as high as it has been for many centuries the arts of the soldier rather than the generalship of the soldier. Notwithstanding this condition, however, the Chinese have in the course of their long national history done some good fighting on various occasions and for various reasons. It is not putting the case too strongly to assert that in the future the Chinese will give a good account of themselves on the field of battle in defense of their country, their Emperor, and of international existence.

Passing now to the Japanese side, we see a nation so filled with patriotic earnest in defense of national honor, and so proud of their country, that at the earliest times they have been a fighting people. Altruism, as applied to a common enemy, has found no place in Japanese ethics, and today, having adopted the so-called western methods of warfare afloat and ashore, Dai Nippon is competent and willing to hold its own in any attack from any direction. The fighting man—the soldier—of Japan, in public estimation, stands head and shoulders above his fellows and the dearest wish of the father of boys is that his sons may be accepted for the service of the Mikado. In all the wars of Japan the government has suffered a true emolument of riches, and the matter of personnel every man of the Empire rendering his services in the field for the common good.

Passing from the general to the particular from the nation to the individual, it is interesting to note a few of the more common or extraordinary differences in the two nations. The Chinaman in general way, is a fat and robust man, he shows the influence of prosperity and

an increase in birth, his work becomes

trifling. He enjoys each food and a good deal of it. The Chinese man of wealth and position of this kind is full of life in principle and fine action, and shows in every action a true appreciation of the good things of this life.

or

He is content with comfort without luxury and from end to end of the Mikado's Empire it is difficult to find a fat man or woman.

The question is often asked why the punishments inflicted in these eastern countries are so barbarous and cruel.

With the Chinese, as with us, in theory, the two points kept in view in the infliction of law to the criminal are first, to make the punishment fit the crime; second, to make a deterrent example for those who, without the fear of consequences, would tend to the commission of crime. It must be acknowledged that on both these points the Chinese methods are typical and if the

present is worse than many punishments are inflicted out of all proportion to the crime, it is worse to remember executions in our criminal history when wheelings were being turned as I dare to believe in various cruel ways. We can remember when the neck of a hog of breed in England sent the carcass across seas as a transport for lard. I yet in our own enlightened land it was frequently proved that the theft of a horse meant death to the culprit. So it may be wise to remember that Chuanan was barely getting to punish the criminal and inspire terror to the evil-doer at the same time.

In all literature on China and Japan the subject of morality, and especially what may be called sexual morality, occupies a due proportion of space, and its discussion is of great interest, but a clear

understanding of the subject requires a more careful study of morality in the abstract than most writers can bestow.

In this as in many other important questions, much depends upon the point of view, and it is very difficult indeed to make a correct and comprehensive presentation of the point of view of the Asiatic world with a vital subject as sexual morality. Generalization based upon our imperfect knowledge is misleading and dangerous, and in connection with this question rises the real status of women in China and Japan, a subject which too often seems to be presented in the pages of this Magazine.

Perhaps in no stage of reaction to the Chinese did they move from their Japanese neighbors than in the official position of woman. In China a husband's wife is of little moment in the public eye, more properly, the unconscious of her husband. She seldom appears on the street, she has no male visitors presented to her, and so far as the well-to-do are concerned that to inquire after a wife is regarded as near akin to a insult to the husband.

On the other hand, however, it is asserted by all residents in China that in matters of family economy, finance, politics, and the domestic administration of the house the Chinese woman of the house has a wide range of influence and in spite of the fact that female education is not recognized as essential a wife generally manages to exercise many a shrewd and interesting influence upon the family.

In Japan, women, girls, and children are very much in evidence, and the consequences of a woman's wrong marriage, the respect shown them in public and private, and the freedom enjoyed by the women of this remarkable country are in marked contrast with the position of a woman elsewhere in Asia.

Woman in Far Eastern countries, so far as inquiry, precisely the same status as her brother, has the same freedom from social restraints, has the same "right





of way," and works just as efficiently in the field and in the workshop, and what is more to the point, *for equal work gets equal pay*." This freedom enjoyed by women in Japan is not of recent growth. It is not the outcome of the emergence of the nation from feudalism and feudalism into the light and practices of modern politics and government, but has always existed, and is as much a matter of course as in the country in China.

The contrasts and comparisons made in the course of this paper are especially interesting when the institutions of these two peoples are compared, for it would seem certain that the *retrouvé* origins of the Japanese and the Chinese were far apart, the doctrine of monogenesis produced by evolution not being homogeneous in any sort for the broad fundamental differences now existing between these two most interesting historical cultures.

GEOGRAPHIC NOTES.

THE RUSSIAN ANNEXATION OF MANCHURIA.

[3] It is well known that Russia has not yet formally exercised a protectorate over Manchuria in the same sense that the British maintain a protectorate of India. The 400,000 square miles of this province may thus be added to the dominions of the Russian Empire.

The conditions on which Russia consents to allow the Chinese officials to remain the civil government, which was taken from them last summer, are as follows:—This agreement thus far applies only to Szechwang, the southern and most important province of Manchuria, but it will be extended to include the other two provinces of Manchuria.

1. The Tatar General Tseng undertakes to protect the province and pacify it, and to assist in the construction of the railroad.

2. He must treat kindly the Russians in military occupation, protecting the railway and pacifying the province and provide them with lodging and provisions.

3. He must disarm and disband the Chinese soldiery, delivering up their arms to the Russian military officials at

occasions of war, and the arsenals not already occupied by the Russians.

4. All forts and defenses in Szechwang not occupied by the Russians, or all power magazines not required by the Russians, must be drawn into the reserve of Russian officials.

5. Nanchwang and other places occupied by the Russians shall be restored to the Chinese civil administration when the Russian Government is satisfied that the pacification of the province is complete.

6. The Chinese shall maintain law and order by local police under the Tatar general.

7. A Russian political agent, with general powers of control, shall be stationed at Sinkien, to whom the Tatar general must give all information respecting any important measure.

8. Should the local police be insufficient in any emergency, the Tatar general will come in contact with the Russian Resident at Mukden and have the Russian to dispatch reinforcements.

9. The Russian text shall be the standard.

The "Boxer" movement was scarcely noticeable in Manchuria, and what little there was of it was easily suppressed by the more sensible of the provincial Chi-

ness officials, but the Chinese soldiers fired at the Boxers of Peking. Hundreds of miles of the railway were torn up in a single week by Chinese regular troops under the direction of local military commanders. This destruction has not yet been repaired.

It is stated on good authority that Russia has today in Manchuria and along the frontier of this province, 59,000 officers and 173,000 men with 340 guns. In addition, between 25,000 and 40,000 men will be despatched by sea to reinforce this large army, and many thousands more will proceed to the Far East over the Trans-Siberian road.

THE POWERS IN CONTROL IN CHINA.

DURING the second week of January, Kiasan turned over to Germany the Southankwan railway, which runs from Tientsin to Nanchwang. This road was built by British capital, but as it is only nine miles south from Manchuria to Peking, Kiasan seized it early last summer, and has operated it during the past months. On the arrival of Commander von Waldsee the protest of the British bondholders was submitted to him, but he decided against them and the British acquiesced in the decision. It is stated that von Waldsee will now hand the road over to its rightful owners, or at least what is left of them, for Kiasan, as it is stated, has succeeded in obtaining the following concessions: (1) That Russia shall retain half the rolling stock of the entire railway for the section from Shantungwan to Nanchwang outside the Great Wall, which is also in Russian occupation; (2) that Russia shall hold a lien on the railway with a tie well for the expenses incurred in repairs, although made with railway property, and in transport operations during the Russian occupation; (3) that Russia

shall appropriate the important workshops at Shantungwan with all their contents.

BRITISH PACIFIC CABLE

THE recently awarded contract for the laying of the British Pacific cable from Vancouver to Australia via Fanning Island at 1,100, specifies that the wire shall be laid by July 3, 1902, so that in eighteen months at the most the world will be belted by a complete cable system. Nine and one-half million dollars will be paid for the making and laying of the cable which will measure, including slack, about 8,000 nautical miles.

Great Britain and Canada have agreed to defray five-eighths of this sum. New Zealand and one-eighth, and New South Wales, Queensland, and Victoria have pledged to contribute the balance between them. It is proposed to charge 49 cents a word for messages to the United States and 24 cents a word for messages to Europe.

THE DEVELOPMENT OF SIBERIA.

THAT well worn phrase "The world of empire westward winds its way," is destined to be contradicted by the growth of Russia during the present century. One hundred years from now it is almost safe to predict the center of the Russian Empire in influence and enterprise, if not in population, will be east of the Ural Mountains.

The great tide of emigration, enterprise and pluck that is following the iron rails of the Trans-Siberian Rail and eastward are strikingly shown in a recent official publication of the Russian Government.

Siberia is roughly divided into two zones, separated by a broad belt of virgin

forest. The northern zone, cold and barren, stretches in an almost unbroken line to the polar regions. The southern zone is rich in those climatic and natural conditions that favor industry and perseverance, and it is this zone that the railway traverses.

During the two decades 1870-1890, 110,000 people emigrated to Siberia; during the next 15 years this number had increased to 650,000, while during the last decade 1,000,000 persons, the majority sturdy Russian

population of Siberia is about 9,000,000.

So great has been the rush of traffic since the line was first opened in 1891, that the equipment has failed to equal the demands upon it.

Of the exports from Siberia corn, sent to the European markets, forms nearly one half. Next come meat, butter (which is shipped in special refrigerator cars to London), tea, wax, wool, eggs, and game. The chief imports are iron and hardware, sugar, cottons and woollens, machinery, and petroleum.

Even today, when the last stages of the Siberian road are not completed, the journey from London to Vladivostok by railway takes only a little more than half as many days, 24 to 42, as the journey by the Suez Canal. The easiest route between the two oceans is Havre, Paris, Cologne, Berlin, Warsaw, Moscow, Samara, Omsk, Tomsk, Irkutsk, Vladivostok—7,500 miles. Of this, 6,400 miles, or six-sevenths of the whole trip, fall to Russian railways—4,000 to the Siberian main line and 2,400 to the European Russian system, 700 to German, 100 to Belgium, and 300 to French lines.

The traveler can reach Shanghai from London or Paris when the main trunk line is completed, in 16 days, and will have to pay \$160 for his first-class sleeping-car express ticket, instead of being 42 days on the route and paying \$450 for the journey.

The total cost of the Siberian road to date constructed as it has been by Russians with Russian money, with all branches and auxiliary undertakings including vessels and ports, is \$784,000,000. In regard to this enormous cost the official report states:

"However large the total may be, it is insignificant in comparison with the advantages brought out to Russia by the exploitation of the shortest railway route between the Atlantic and the Pacific conjunction with the stimulation of the rich productive powers of a vast country like Siberia and the development of Russia's commercial intercourse with the countries of eastern Asia."

HON. O. P. AUSTIN

Mr. Austin's proposition, which is printed in the opening pages of the present number, was read by him before the National Board of Trade on January 24 at the special request of that body. The proposition, although a novel one, was received with such favorable consideration that a special committee, consisting of the leading officers of the National Board of Trade, the Philadelphia Mercantile, the National Manufacturers' Association, and the United States Export Association, was at once appointed to consider its feasibility, and if found practicable, to formulate plans for a proper organization to put it into operation.

Mr. Austin has been Chief of the Bureau of Statistics since the spring of 1878, and during that time has prepared

the following reports:

- "Russia and the Trans-Siberian Road."
- "China, Porto Rico, and the Hawaiian, Philippine, and Samoan Islands."
- "Russia and the Trans-Siberian Road."

China, Porto Rico, and the Hawaiian, Philippine, and Samoan Islands."

"Russia and the Trans-Siberian Road."

of the World," "Submarine and Land Telegraphs of the World," etc., etc.

His earlier literary work prior to his entrance upon official life consists of a series of books on national affairs especially intended for the instruction of youth, including "Uncle Sam's Sol-



diers." "Uncle Sam's Soldiers," while others of the series are still in preparation.

Mr. Austin is a member of the National Geographic Society, and as such his recent contributions to geographic and commercial information have been very favorably received and highly commended.

CUBA AND PORTO RICO.

THE U. S. War Department has recently published two volumes containing the results of the censuses of Cuba and Porto Rico, taken in the fall of 1899 under the direction of military officers.

The volumes are indispensable to those who wish to obtain an accurate understanding of the present condition of these people.

The facts presented in the reports were gathered in all cases by the people themselves, as the most intelligent of the better classes were induced to compete for positions as census-takers of the relatively large square areas covered by the U. S. Government. The facts thus gathered were classified under the direction of Messrs. Henry Gannett and Walter F. Wozz, statistical experts.

These handsomely gotten up volumes, containing many good illustrations, charts, and diagrams which emphasize the figures, can be consulted gratis on application to the War Department. Extracts from these reports, taken from advance sheets, have appeared from time to time in this Magazine. But some further notice may be of interest.

Porto Rico has only one-third of its population engaged in ganarial occupations while in Cuba the proportion is about two-thirds, and in the United States it is about midway between.

It appears that the rent of breadwinners is greater in Cuba than in rural districts. In Porto Rico a relatively larger proportion of women work for a livelihood than in Cuba, although

the United States.

It is interesting to compare the usual occupation most popular in the islands. In Porto Rico sixty-nine in every 100 working persons labor on farms, plantations, in mines or are engaged in fishing. In Cuba 48 in every 100, while in the United States only 39 are so engaged. In the manufacturing and mechanical industries, however, these proportions are reversed, in Porto Rico 8 in every 100, in Cuba 15, and in the United States 27 earn their living by transforming raw material into new forms.

THE ATLANTIC WEATHER SERVICE

[DR. ALFRED J. HENRY, director of the Weather Bureau, has not been looking for the best man but the best man has found him, not Herriman. This situation was needed to complete the chain of composite pictures of atmospheric processes extending from the lowest to the highest wind currents, from the surface to the stratosphere. In addition, the track of a tropical disturbance which passes eastward from the Pacific Ocean and where occasionally it goes northwestward, striking the southern England. From this vantage point it will now be possible to forecast with greater accuracy the tracks of storms developing from the coast of the Carolinas.

Area groups have also been established by the Weather Bureau in a double chain from the Azores, giving composite original observations a part of our Atlantic, and also for a double chain from Iceland, surrounding the coast of the west of Spain, France, and Ireland. As the forecasters of the Weather Bureau can now determine what conditions storms proceeding from the United States will meet, they are able to predict with much more certainty the character of such storms are likely to possess.

The U. S. Weather Bureau has already begun issuing to the captains of the trans-Atlantic liners predictions of the weather for the duration of New York.

There has been more in our knowledge of the laws governing meteorological conditions, and especially in the practical application of these laws to the interests of the nation and the farmer has been one of the most important recent developments of science. Prof. W. S. La Motte, chief of the U. S. Weather Bureau, believes that the time

has come when scientists will so thoroughly understand these laws that they can with certainty forecast the seasons.

THE U. S. WEATHER BUREAU AT THE FAIR EXPOSITION

[THE United States Weather Bureau exhibit was installed during the month of April and closed to visitors on August 15, at a single of connection May 15. The building remained open and the exhibit accessible to visitors every day, except on Saturdays from 9 a. m. to 5 p. m. from May 15 to September 30, and from 9 a. m. to 5 p. m. during the month of October. It was necessary to close a building earlier during the month of October on account of darkness there being no way of lighting the

The exhibit was visited by many thousands of people, among whom were meteorologists and those interested in related sciences from all parts of the civilized world. The chief photographs comprised of making weather forecasts, and the kite and aërial apparatus attracted special attention.

Many interested in aeronomics and aërostatism examined the kite exhibition in detail, taking photographs and measurements of the kite, instruments and apparatus. Numerous among these were a number of officers of the German, French, Italian, and Japanese armies and navies.

During the meeting of the International Meteorological Congress, which brought to Paris representative meteorologists from nearly all parts of the world, a special invitation was extended to several foreign members to visit and inspect the Weather Bureau exhibit. This invitation was accepted and therefore the exhibit brought the methods, instruments, etc., of the United States Weather Bureau to the attention of those most interested in meteorological work.

It was the special effort of those connected with the exhibition to set forth in the strongest and clearest light possible the importance of the United States Weather Bureau and its practicality and great economic value to the people of the United States and of North America. Special stress was given to the great importance and the value of its weather forecasts and warnings.

As a result of the visit of the Jury of Awards and their critical examination of the United States Weather Bureau was awarded a *Grand Prix*. Gold medals were awarded to two chiefs of the Weather Bureau, Prof. A. E. Murray for instruments, apparatus, and appliances, and to Prof. A. J. Henry for climatography.

THE LOSS OF PROPERTY FROM LIGHTNING.

IN 1898 systematic efforts were made by the United States Weather Bureau to ascertain the frequency of damage or destructive lightning strokes throughout the United States. The results of the first year's work were published in *Weather Bureau Bulletin No. 20, Lightning and Potency of the Air*, and also separately as *Weather Bureau Bulletin No. 20, Property Lost by Lightning*, 1898. The collection of statistics bearing upon damage and damage to property was continued during 1899.

The total number of reports received

the previous year

number 739 buildings caught fire as a result of exposure to other buildings that had been set on fire by lightning.

The great majority of buildings struck by lightning were not provided with lightning rods. A conservative estimate by F. F. A. J. Henry in the total

loss by lightning during the year would probably be \$6,000,000. One half of the buildings struck were barns, sheds, warehouses, etc., and about 7 per cent churches and schools, cattle, horses, mules, and pigs were killed, the high value of the value of the animals.

POLAR WORK.

PLANS for the DeLong-Ziegler North Polar Expedition are maturing rapidly for the purpose of Arctic explorations. Mr. DeLong is not hampered for want of funds. Mr. Ziegler,

prize, has expressed a willingness to pay all expenses under one million dollars. Half a million was the cost of the Italian expedition of last year, and it was with considerable equipment but was thus proven that the Lake of Albert was partially one of his success.

Mr. DeLong's route. He has no experience with Henry in Greenland and with Weddell in Franz Josef land, and is thus a limited with the practical collection of his resources. Two ships will take the party north, one returning before the other and back to the Arctic, and the second returning with the first through the water. Mr. DeLong plans to take a number of tough Siberian ponies with him. The chances are many against his being able to get them to any practical use, but the one chance is worth trying for.

The summer of 1901 will witness the completion of the first of the new summer expedition to reach the North or South Poles that has ever been attempted. In the Arctic, early in the day, Evered, in the *Kassan* party with a vessel of the type of the ice-breaking *Albatross* will push northward, while in the Antarctic two steamships

will strive to reach the of great extent.

THE BRAZIL-FRENCH GUIANA
TERRITORY DISPUTE

BY the award of the Swiss Federal Council the arbitration is a tie as far as to the frontier line between French and French Guiana. Brazil has obtained the 200,000 points, and which are connected. Brazil owns 147,000 square miles of the disputed territory and France not more than 30,000 square miles. The dispute then is a tie as to the frontier line. The frontier line is the Araguari River which is parallel to the Amazon. The frontier line is determined by the award of the Swiss Federal Council. The frontier line is the Araguari River which is parallel to the Amazon. The frontier line is determined by the award of the Swiss Federal Council.

are in contact. Although north of the arctic circle, it is free of ice the year round and is reached by an offshoot of the Gulf Stream.

A dam nearly 500 feet in length has been built to protect the harbor, which is deep enough for the largest ships. The town has now some 250 inhabitants, mostly clerics and laborers, boasts 50 houses, a hotel, and several shops. It has electric incandescent and arc lamps. The government does not expect the town to grow much larger, but it serves as a port of call for the trade of inland commerce. Kassia is a clearing point for the considerable traffic of hides that come down the Rio and Venes rivers.

SWITZERLAND'S NEWS

1. That the League of Nations has decided on article 3 of the Treaty of Locarno is a League that demands to the west of Cape Orange, as has been established by the arbitrators which would have been decided to be the same as the frontier line of that river. This is a tie to the Swiss Federal Council. This is a tie to the Swiss Federal Council.

2. That the League of Nations has decided on article 3 of the Treaty of Locarno is a League that demands to the west of Cape Orange, as has been established by the arbitrators which would have been decided to be the same as the frontier line of that river. This is a tie to the Swiss Federal Council. This is a tie to the Swiss Federal Council.

ALEXANDROWSKI

ALEXANDROWSKI the hydrographic engineer of the Russian Government at the Murman coast 20 years ago, is becoming a constant object of

A CORRECTION.

MR. LITTLEHALPES has called attention to an erroneous statement in the note appearing in the January number of the Magazine entitled "The Ice Cap of Antarctica." The correct equation to the curve which, by revolution around a vertical axis, will generate the theoretical form of an ice cap is $y = \sqrt{2ax}$, where y is the radius of the ice cap at a distance x from the center. The correct equation to the curve which, by revolution around a vertical axis, will generate the theoretical form of an ice cap is $y = \sqrt{2ax}$, where y is the radius of the ice cap at a distance x from the center.

— 100 —

It would be interesting to know the base of Napoleon's column, the coefficient of crushing strength of the materials composing the crest of the column, the average density of these materials, and of the density of sea water.



DIARY OF COLONEL HILDER

INKANK FREDERICK HILDER, soldier, geographer, and ethnologist, was born in Hastings, England, 1850, he died in Washington, D. C., 1900. Educated at King's College, London, in various matters of letters, he afterwards graduated from the British Military School at Sandhurst, and entered the army as a cornet in the 10th Hussars at a time when the eyes of a England were turned on India. Sent immediately to aid in quelling the Sepoy rebellion, he soon saw service of such severity and met it with such intrepidity that he was awarded the Indian Military Medal with special service bars for Dehra and Lucknow.

It was during this period of his career that Hilder traversed the Indo-Gangetic plain from the Himalayan foothills and visited the provinces and cities of the northwestern empire from Bombay to Kashmir and from the Punjab to the coast, forming the foundation for a broad, yet accurate, geographical and ethnological information. Some of the lectures of the next few years of his life were spent in and about Egypt, and the result was an interesting book early in his career. He saw service in the Boer War in Africa, and the 4th Hussars, and after rising through a hierarchy to the rank of captain was transferred to Africa. Here he won the Egyptian Medal, and his military industry, expert and organizer attracted such attention that after his return to his regiment in India he was recalled and promoted to a colonelcy at the express request of the King.

In Africa as in India Colonel Hilder seized every opportunity for scientific research, and his tenure in the Egyptian army was cut short by the terrible expense of a malaria attack which so injured his eyesight that he decided to abandon a military career. Coming to America on his recovery, Colonel Hilder

met again the complications of military Spain stimulated by a civil war, and did special work of importance in the Engineer Corps, but here so fully to his credit on of a period of active decline in American economic life. In the latter states he became a citizen, the representative of a small army and navy, and spent fifteen years chiefly in travel through the several American countries and during this period

of residence with long voyages and lectures, as well as with numerous other military duties. Impressed by the opportunities of international business presented by the means and prospective repeals of Spanish American he established a house in Chicago, only to be ruined by the fire of 1871, later he conducted business enterprises in St. Louis and Mississippi, and while he resided in that ethnology of the Mississippi Valley. His literary pursuits by continuing he turned to research and publication, publishing important contributions to the progress of the Pan American Railway and the Bureau of American Republics.

Colonel Hilder acted as secretary of the National Geographic Society during the year ending June, 1890, a secretary of the Ethnological Translation of the Bureau of American Ethnology. He continued in this position to the end of his death, though he was also at the same time a special agent of the 1893 American Exposition. His work in the Philippines during the latter half of 1890.

As indicated by his career, Colonel Hilder possessed remarkable governing character, yet he was by nature a humanitarian idealist, and devoted the best energies of his life to the increase and diffusion of knowledge. His literary contributions, through the Bureau of Ethnology, and the Bureau of American Republics, as well as through the National Geographic Magazine, were

the *Forster*, and other standard periodicals, are well known, while his general and instructive lectures, based on personal observations in India, Egypt, South Africa, Central America, the Philippines, and other remote regions, live in the memory of thousands.

A. J. M.

THE ORIGIN OF YOSEMITE VALLEY.*

Much of the Sierra Nevada has been glaciated, and in support of this fact evidence numerous cases of glacial markings and moraine deposits.

If there is any one feature of the higher parts of the Sierra which stands out in addition to the fact that "it is not a dry run," it is the fact that it has been covered by glacial ice in sheets and areas as great that as a very recent date.

There is no need to search for glacial scratches or moraines. The whole aspect of the terrain is that of great sheets of bare granite, not yet covered with soil, with rounded surfaces, cut by deep U-shaped canyons containing thousands of lake basins, and presenting cirques and hanging valleys. In short, everything in the field of vision tells the story of a wholesale ice invasion. Nor was it a brief one, but one which lasted for many centuries, during which countless miles of rock were carried away, canyons thousands of feet deep were excavated, and the level of the country placed down to an enormous extent.

As to the potency of a glacier for the work of erosion, Mr. Turner is among the few remaining upon the negative side. His argument, however, stops

convinced in a denial of the ability of a glacier to excavate gorges. That the gorges of the high Sierra were cut by glaciers is true nevertheless. They are plainly the result of channel and valley erosion, and channel erosion upon such a scale as this is done only by ice. The line of demarcation between channel and valley erosion in the canyons of the Sierra is clearly marked, and can be determined, one might almost say, to a foot. At the point at which the present massive ranges of ice ceased, the flow of water began. I do not mean that the ice may not have excavated further down the canyons, but that below certain points, as you step up the slopes, the flow of water has worked it out of ice. It is other proof of the competency of glaciers to do the work of erosion upon a large scale, we are waiting the presence ever where of hanging glaciers in itself evidence of a glacier. There is no other known agency which could produce them, and today we see them in process of production everywhere in glacial regions, notably upon the Alaskan coast, where there are the remains of their former construction before our eyes.

Holding such opinions concerning the erosive power of glaciers, it is to be expected that Mr. Turner attributes the creation of the Yosemite Valley to other agencies than ice. Indeed, he attributes it to aqueous erosion, and to agencies of fractures in the granite. He finds no significance in the fact that Tenaya Canyon is vast in extent in breadth and depth, as associates it as could be created by the present Tenaya Creek. He passes over without notice the significant fact that every stream, excepting Tenaya Creek, enters Yosemite Valley through a hanging valley, and that the character of the Merced Valley changes abruptly and suddenly to a V-shaped gorge over or three miles below Fort Mono on the foot of Yosemite Valley.

It is perfectly obvious to those familiar with glacial phenomena that Yosemite is

* *The First Annual Congress of the Southern California Association with Program of Reference to the West, Yosemite Valley.* By Henry Ward.

Proceedings of the California Academy of Sciences, Vol. 1, No. 9.

quite an ordinary and necessary product of glacial erosion under the conditions prevailing in that locality. The main glacier came down Tenaya Cañon, cutting it to a steep but fairly uniform grade. Yosemite Valley is but a continuation of that gorge. The end of the glacier, at the time that it was cutting Yosemite, extended not far beyond Point Merced. It remained there for a long time, and therefore plowed out the bottom of the valley to a considerable depth. From a glacier joined the Tenaya glacier when it filled Yosemite coming down the valleys of Yosemite, Little Yosemite, Illwacoite, and Bridal Veil creeks, and forming hanging the junction points. The formation of the verticillities of the valley may have been due to undermining, and may have been aided by the cleavage of the rocks. On the recession of the glacier doubtless the bottom of the valley was occupied by a lake, which has since been partially filled by detritus and drained by the cutting of Merced River cutting through the rock wall at the foot of the valley.

— E. H. RYLAND

GEOGRAPHIC NAMES.

THE following decisions were made by the United States Board on Geographic Names, January 9, 1901.

Boonville, postoffice, Washington County, Arkansas (not Hloverd nor Hovyd or Boon), creek, Lincoln County, Missouri (not Hobbs nor Hoes).

Carroll, glacier reaching the sea at head of Queen Inlet Glacier Bay, southeastern Alaska (not Woods).

Chickadee, postoffice, Wisconsin (not Spruce Pine) (not Chick nor Yeoman).

Douglas, bay indenting south coast of Kupreanof Island, Sitka Bay Strait, southeastern Alaska (not Douglass).

Glacier Pacific, glacier reaching Reid Inlet from the north Glacier Bay, southeastern Alaska (not John Hodgkins).

Iskut, mountain, and river tributary to the Skeena in southeastern Alaska (not Isk not nor Skeot).

John, bay and cape on southeastern shore of Afognak Island, Alaska (not John, Isboat, Penecow Ship, not Whitehead).

Kates Needle, mountain near Siskiwit river, southeastern Alaska (not Kates Needle).

Kashan, small bay at head of Kenner Bay, Unalakleet eastern Aleutians, Alaska (not Kassinak nor Wotshun).

Kupreanof, strait between Afognak and Koonak Islands, Alaska (not Kathak North, Northern, nor Stevenson).

Mooneyham, branch of French Broad River, Cocke County, Tennessee (not Mooneyham nor Mooneyham).

Muller, creek, postoffice, and railroad station, Mills County, Texas (not Muller).

Nee Perre, county in Idaho (not Nee).

Nishnabotung, river in southwestern Iowa (not Nishnabotany, Nishnabotany, Nishnabotany, Nishnabotany).

Ream, creek, Hanson County, North Dakota (not Reams nor Rims).

Reid, glacier reaching the head of Reid Inlet, Glacier Bay, southeastern Alaska (not Charpentier).

Sauganada, creek, in Buffalo, Erie County, New York (not Sauganado, not Sauganade).

Signal, point on eastern shore of Tanigash Harbor, Adakette Island, southeastern Alaska (not Signal).

PROCEEDINGS OF THE NATIONAL GEOGRAPHIC SOCIETY

Popular Meetings.

November 9, 1900. — Prof. Willis L. Moore, Director of the U. S. National Museum, of the American Museum of Natural History, New York city, delivered an illustrated address, "The Ancient City of Moho, Mexico."

November 16, 1900. — Mr. Marcus C. Greely, Chief Engineer, U. S. A., delivered an illustrated address, "A Trip through Yunnan."

December 7, 1900. — President Graham presided in the chair. Dr. W. A. P. Martin, President of the Imperial University of Peking, delivered an address, "The Surge of Peking."

December 14, 1900. — Mr. G. K. Gilbert in the chair. Capt. Edward S. Croghan, U. S. A., who is going to cross Africa from south to north, delivered an address, "From Cape to Cairo."

December 21, 1900. — President Graham presided in the chair. Mr. Donald P. Hallett, Forester, U. S. Department of Agriculture, delivered an illustrated address, "The Proposed Appomattock Park."

January 4, 1901. — President Graham presided in the chair. Mr. Joseph Stoddard, Howard, delivered an illustrated address, "The Franciscan Masses of Southern California."

January 11, 1901. — President Graham presided in the chair. Sir Arthur P. Smith delivered an illustrated address, "The Atlantic Canal Routes."

Technical Meetings.

December 14, 1900. — President Graham presided in the chair. Papers were read as follows: "Water Pre-occupation in Relation to Irrigation," by Dr. H. C. Parker, Cal.; "The Survey for a All American Cable to the Philippines and the Orient," by

C. W. Fitch, Cal.; "American Antiquities," by C. A. Smith.

January 11, 1901. — President Graham presided in the chair. Papers were read as follows: "The Steam Meter as a Determiner," by W. J. Peters.

"Establishment of Compass Levelling Range-marks on Delaware and Delaware," by D. R. War Wright; "A Tectonic Cycle in Glaciers," by G. K. Gilbert.

Announcement of Meetings.

February 1, 1901. — "Mexican History, Characteristics and Recent Progress," by Dr. Don Juan N. Aguero, Mexican Consul General at New York.

February 15, 1901. — "Explorations in Abyssinia," by Dr. T. Clapperton.

March 4, 1901. — "The Keweenaw Peninsula," by Gilbert H. White.

These lectures will be delivered in the Congregational Church, 6th and U Streets, at 8 p. m.

Transactions Meetings for the reading of papers of the season will be held in the hall of the Cosmos Club on the evenings of February 8 and 22.

The committee having in charge the formation of the program for the lecture and meetings of the Society desire to invite members to report to the Secretary of the Society the titles of communications bearing upon geology, land research that are available for presentation to the Society during the months of February, March, April, and May, 1901.

The subject of the lectures for this year is "The Countries of Asia." The first lecture of the series will be at 4:20 p. m., Tuesday afternoon, February 26, in the Commodore Hotel, 6th and F Streets, Washington, D. C.



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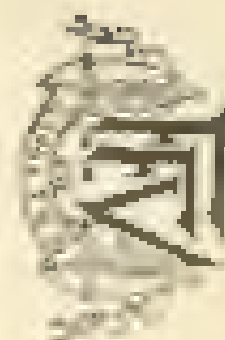
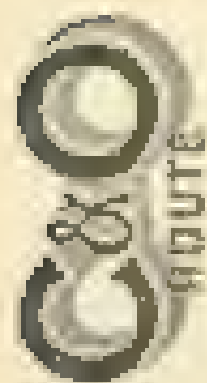
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THE POPULAR SCIENCE MONTHLY for February is a number that should be in the hands of every one who is interested in science. The opening article, on the "LIFE AND WORK OF HUXLEY," by Lord Archbury—perhaps better known in America as Sir John Lubbock—is an extremely interesting account of the great naturalist by one of his most intimate friends. The publication of Huxley's "Life and Letters" makes this article particularly timely. Dr. George M. Sternberg, Surgeon-General of the U. S. Army, contributes an account of malaria and the recent work demonstrating the connection of this disease with mosquitoes—perhaps the most important scientific advance since the discovery of the X-rays, here described by the leading American authority. Mr. Harvelock Ellis, editor of the "Contemporary Science Series," begins a series of articles on "British Men of Genius," an extremely interesting statistical and scientific study, now first made possible by the publication of the "Dictionary of National Biography." Professor Simon Newcomb contributes an installment of his "Chapters on the Stars," treating the clustering of the stars and the Milky Way. Professor Newcomb is probably the most eminent American man of science, while at the same time he possesses rare literary ability in presenting clearly and simply the great principles of science. Other articles in the number are an account of important contributions by Professor T. C. Chamberlin, to a theory of the glacial period, by Mr. Bailey Willis, of the U. S. Geological Survey; a description of the New York Aquarium, with illustrations by Professor Charles L. Bristol, of New York University; a description of the Dolmens of Rocknia, by Professor A. S. Packard, of Brown University, and an account of the way in which the weather is treated and mis-treated in the newspapers, by Mr. H. M. Watts, of the *Philadelphia Press*. The number contains, as usual, departments devoted to correspondence, to scientific literature, and to notes on the progress of science.

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